

**INFORMATION REPORT**  
**GROUNDWATER OPTIONS**  
**FOR**  
**IRRIGATED LANDS**  
**CONDITIONAL WAIVER PROGRAM**

**15 September 2005**

**Introduction**

At the August 2005 meeting of the Central Valley Regional Water Quality Control Board (Water Board), the Board Chair discussed groundwater protection in relation to the Irrigated Lands Conditional Waiver Program (Program). He noted that the current Program is only for discharges to surface water, although the Water Board has a responsibility under Porter-Cologne to protect all waters of the state, including groundwater. He requested the staff to prepare a “plan for presenting the advantages and disadvantages of various options, together with a recommendation on how best to proceed”. This staff report provides some preliminary options to address discharges to groundwater of wastes from irrigated lands and lays out a plan to collect, evaluate and present to the Water Board more complete information.

**Background**

On 11 July 2003, the Water Board adopted the *Conditional Waivers of Waste Discharge Requirements for Discharges From Irrigated Lands Within the Central Valley Region* (Conditional Waivers). The Conditional Waivers provided an option for owners and/or operators of irrigated lands, which discharge tailwater, stormwater runoff, or other waste to surface water, to comply with the California Water Code (Water Code). At the time the Water Board adopted these Conditional Waivers, the Water Board chose to focus on regulation of discharges to surface water because available information indicated that many surface water bodies in the Region were impaired, and the previous conditional waiver in Resolution No. 82-036, that expired on 1 January 2003, applied to discharges to surface water.

In 2003, the Water Board was faced with adopting an expanded regulatory program for irrigated lands and decided to tackle the highest priority problem first, the discharges to surface water. Although the Water Board determined it would be too large of an undertaking to regulate discharges of waste to groundwater in the Conditional Waivers, it did indicate that groundwater discharges should be addressed in the future as part of the long-term implementation program.

Persons who discharge waste that could affect the quality of waters of the state are subject to the Water Code. Persons, including owners and/or operators of irrigated lands that discharge waste to groundwater or to land where it discharges to groundwater are not exempt from complying with the Water Code. Since they are not eligible to enroll in the existing Conditional Waivers, the only way for these growers to comply with the Water Code is to submit a Report of Waste Discharge and obtain Waste Discharge Requirements. It is the responsibility of such growers (dischargers) to determine if they discharge waste that could affect the quality of waters of the state and then comply with the Water Code. It is not unprecedented for the Water Board to address impacts of agricultural drainage discharges on groundwater. See, for example, the Implementation Program entitled *Agricultural Drainage Discharges in the San Joaquin River Basin* (Water Quality Control Plan for the Sacramento and San Joaquin River Basins, at pages IV-30.00-32.00).

There are numerous sources of groundwater data available that Water Board staff can gather, review and evaluate. Sources include other Water Board programs, such as the Dairy Program and the State Water Resources Control Board's Groundwater Ambient Monitoring and Assessment (GAMA) Program; and programs of other agencies, such as Department of Pesticide Regulation, Department of Food and Agriculture, Department of Water Resources, Department of Health Services, Water Districts and other local agencies. There may also be data available from the agricultural community and environmental organizations. Water Board staff intend to work with these agencies and interested persons to collect and review the data in order to prepare detailed groundwater options for the Water Board's consideration at a later date.

### **Environmental Impact Report**

Water Board staff have embarked on a process to develop an Environmental Impact Report for a long-term water quality regulatory program for discharges of waste from irrigated lands to surface waters. The current scope of work in the EIR contract does not include a full evaluation of the impact of discharges of waste from irrigated lands on groundwater or a full evaluation of existing groundwater conditions. The scope of work does provide a general overview of the existing groundwater conditions and an evaluation of the effects on groundwater quality of management practices implemented to protect surface water.

If the Water Board wishes to expand the EIR to include a full evaluation of impacts of the regulation of discharges of waste due to agricultural activities on groundwater, the existing contract may need to be amended or a new contract developed. This would entail additional time and cost to complete the final EIR. The current schedule calls for a final EIR to be completed in early 2007. To determine what would be involved to evaluate the regulation of discharges of waste to groundwater, Water Board staff intend to review the contractor selection process for the current contract, requirements and limitations of the State's contracting process, and what potential additional cost and time would be needed. Some of this information may be available at the September Board meeting.

### **Groundwater Options**

Water Board staff have developed some preliminary options to address discharges of waste to groundwater from irrigated lands. These options are listed below, followed by a brief description and some pros and cons of each one.

- Option 1 Expand the current Conditional Waiver program during the upcoming renewal process to include growers that discharge of waste to groundwater.
- Option 2 Develop a Conditional Waiver for growers which discharge waste to groundwater that have a minimal effect on groundwater quality and general Waste Discharge Requirements for discharges that degrade or threaten to degrade groundwater quality.
- Option 3 Include discharges of waste to groundwater in the long-term water quality regulatory program for irrigated lands.

**Option 1** Expand the current Conditional Waiver program during the upcoming renewal process to include discharges of waste to groundwater

Under this option, the Water Board could consider, for example, including the regulation of discharges of waste to groundwater in the upcoming Conditional Waiver Renewal. This could be done in conjunction with the Department of Pesticide Regulation's current program for sensitive or high priority groundwater areas and/or groundwater protection areas. There is not sufficient time before the current expiration date of 31 December 2005 to consider such a change.

The advantages of this option include 1) providing equity amongst irrigated land owners and operators by including all discharges of waste from irrigated lands that could impact waters of the state and not only the discharges to surface water, and 2) starting to make the Program more consistent with other Water Board programs that protect all waters of the state.

The disadvantages of this option include 1) increasing uncertainty for the irrigated land owners and operators with a short renewal period, 2) shifting staff resources from other critical work in the short-term to comply with applicable law, such as CEQA, 3) shifting the focus of irrigated land owners and operators away from the current Program requirements to discuss and debate the groundwater issues, 4) substantially increasing the need for additional staff to service an expanded program to address identified groundwater issues, and 5) increasing complexity as to the use of existing Coalition Groups or new groups to address groundwater specific issues.

**Option 2** Develop a Conditional Waiver for growers which discharge waste to groundwater that have a minimal effect on groundwater quality and general Waste Discharge Requirements for discharges that degrade or threaten to degrade groundwater quality.

Under this option, the Water Board could, for example, consider a Conditional Waiver specifically for growers that discharge waste from irrigated lands to groundwater where the discharge has minimal effects on groundwater quality, i.e., a "De Minimis Groundwater Conditional Waiver" and consider general Waste Discharge Requirements (WDRs) for discharges that degrade or threaten to degrade or pollute groundwater. These tools would be in addition to the current Conditional Waivers for discharges of waste from irrigated lands to surface water.

The advantages of this option include 1) providing irrigated growers who discharge waste to groundwater with an easier mechanism to comply with the Water Code, 2) providing tools for Water Board staff to address discharges of waste from irrigated lands to groundwater without preparing individual WDRs, 3) providing equity amongst growers by including all Dischargers and not only those that discharge to surface water, and 4) starting to make the Program more consistent with other Water Board programs that protect all waters of the state.

The disadvantages of this option include 1) bifurcating the Program into surface water and groundwater discharges with different tools for each, which could cause difficulty for understanding and compliance, 2) developing conditions, requirements and monitoring for these tools could prove difficult, 3) shifting staff resources from other critical work to prepare these documents and their associated CEQA evaluations and documents, and 4) increasing the need for additional staff to service an expanded program and address identified groundwater issues.

**Option 3** Include discharges of waste to groundwater in the long-term water quality regulatory program for irrigated lands.

This option is the status quo, for Water Board to continue along the same path as intended when the Program started, which is to include groundwater in the long-term water quality regulatory program for irrigated lands. This would require an evaluation of existing groundwater conditions and regulatory options during the EIR process. Growers which discharge waste to groundwater and impact or threaten to impact water quality are required to file a Report of Waste Discharge (RWD) and filing fee for Waste Discharge Requirements. Water Board staff would evaluate the RWD for completeness and develop Waste Discharge Requirements as appropriate.

Advantages of this option include 1) providing time for Water Board staff to gather groundwater data and information, which will allow for preparation of a more defensible and robust regulatory program for discharges of waste from irrigated lands to groundwater, 2) allowing the current Conditional Waivers to be renewed, thereby providing some stability and certainty for irrigated land owners and operators that discharge to surface waters, and 3) providing an opportunity for the public to participate and the Water Board to fully consider options for regulating discharges to groundwater.

Disadvantages of this option include 1) continuing the inequity amongst surface water and groundwater dischargers, and 2) not providing an easier mechanism for several years for dischargers of waste to groundwater to comply with the Water Code.

### **Conclusions**

Water Board staff intend to work with other Water Board programs, government agencies, the agricultural community, environmental interests, and others to gather groundwater information and use it to develop more robust options and a timeline to address discharges of waste to groundwater from irrigated lands. Once this information has been obtained and considered, these options and maybe others can be presented to the Water Board. Water Board staff anticipate being able to provide an information item to the Water Board in early 2006. Conducting this work will require shifting staff resources from other existing work, such as the De Minimis Conditional Waiver.